Endometrial tuberculosis mimicking endometrial malignancy - histopathology key to management - a case report

Kanili Jimo, Nounechutuo Miachieo, Bendangtoshi Jamir, Rebeki Momin, Nito Yepthomi

Corresponding author: Dr Kanili Jimo, Consultant, Department of Obstetrics and Gynaecology, Christian Institute of Health Sciences and Research (CIHSR), Dimapur, Nagaland, India; Email: kanilij@gmail.com

ABSTRACT

Endometrial tuberculosis may mimic endometrial malignancy in clinical presentation, ultrasound findings and laboratory tests. We present a case of genital tuberculosis where a provisional diagnosis of endometrial carcinoma was made initially. Patient was later diagnosed and treated with standardized anti tubercular drugs (ethambutol, isoniazid, pyrazinamide and rifampicin). Patient had clinical improvement and normal endometrial thickness at the end of the treatment. This case underlines the mandatory need of a high index of suspicion in our country, towards pelvic tuberculosis preoperatively in a patient with endometrial hyperplasia and ascites.

Keywords: Endometrial tuberculosis, thickened endometrium, endometrial malignancy.

The incidence of abdominopelvic tuberculosis has increased worldwide in the last decade. It is believed that in India about 2-3 million cases are detected every year. Tuberculosis may have many clinical presentations; one of which is the abdominopelvic form which occurs more frequently in women. This form of tuberculosis may simulate endometrial malignancy. We present a case of endometrial hyperplasia in which imaging was suggestive of malignancy, but histology revealed a rare but curable etiology.

Case

A 60 year old para 7 who attained menopause 10 years back, presented with abdominal distension and discomfort for 2 months, and anorexia and nausea for 3 months. On examination, she was emaciated, with a BMI of 19.47 kg/m² (weight - 45 kg, height - 152 cm). Mild pallor was present, thyroid swelling was present. Abdomen was distended with considerable ascites, fluid thrill and shifting dullness; no mass was palpable. Pelvic examination revealed normal cervix with mild atrophic vaginitis. Uterine size could not be made out due to ascites.

Hemoglobin was 9.8 g/dl. Renal, liver and thyroid function tests were normal. Chest X-ray showed minimal pleural effusion. Transabdominal sonography (TAS) showed marked ascites. The endometrial thickness was 10.4 mm, an unusual finding in a postmenopausal woman (absence of bleeding). Contrast enhanced CT scan showed thickened endometrium for age - to rule out neoplastic etiology, extensive fat stranding of the greater omentum, diffuse enhancement of the pelvic peritoneum with ascites suggestive of metastatic deposits. Abdominal paracentesis revealed plenty of lymphocytes and no malignant cells or acid fast bacilli. The differential diagnosis was endometrial malignancy with metastatic deposits to omentum. As endometrium was markedly thickened, a fractional uterine curettage was done. The formalin fixed paraffin embedded tissue were then sectioned and stained with haematoxylin and eosin. Histomorphology of the curettage showed multiple fragments of endometrial tissue in proliferative phase with multiple well-formed granuloma (figure 1, 2). The granuloma consisted of central caseous necrosis surrounded by epithelioid cells, Langhan’s type giant cell,
lymphocytes, plasma cells and fibroblasts. Modified ZN stain was performed which revealed multiple acid fast bacilli confirming a diagnosis of tubercular endometritis (figure 3).

Patient was started on antitubercular treatment for 6 months. The patient responded to antitubercular therapy and recovered completely. After the completion of therapy repeat ultrasound was normal with endometrial thickness of 4mm corresponding to postmenopausal status. On subsequent followup visits, the patient is doing well and is asymptomatic for 6 months.

**Discussion**

The incidence of extra pulmonary tuberculosis is almost 14% in developing countries\(^3\). Pelvic tuberculosis continues to be prevalent in India, and this case report illustrates that in suspected endometrial cancer, alternative diagnosis warrants consideration.

The majority (75%) of women with genital tuberculosis are in the reproductive age (between 20 and 45 years old), and the detection of this disease in the postmenopausal phase is rare \(^4\). After menopause, a clinical sign that can occur in endometrial tuberculosis is bleeding, and less frequently, pyometra. The important differential diagnosis in this age group is endometrial cancer \(^7\) - \(^9\). The idea of presenting this case report is that whenever there is thickened endometrium with ascites; think about abdomino-pelvic tuberculosis as a differential diagnosis for endometrial malignancy which is common in India. Our case presented with nonspecific abdominal symptoms, cachexia, ascites and a thickened endometrium confirmed by ultrasound, suggesting a clinical picture of endometrial malignancy but histopathology of endometrial curetting confirmed tuberculosis and surgery was avoided in this case.

When pelvic tuberculosis is suspected other diagnostic tests that can be done are CT scan, tuberculin skin test and acid fast stain, but all of them can be negative or inconclusive\(^5\). Short of exploratory laparotomy there is no currently available non-invasive technique that accurately indicates whether a pelvic mass is benign or malignant. Histopathology was clearly suggestive of tuberculosis in this case. Tissue can also be sent for microbiological culture with sensitivity or PCR (polymerase chain reaction) for increased sensitivity. Histopathology coupled with clinical awareness is very important in making a prompt diagnosis and avoid unnecessary surgery.

**Conclusion**

Tuberculous endometritis is a rare, but curable disease. It is imperative to consider this possibility in a patient of thickened endometrium with ascites mimicking as endometrial malignancy particularly in developing countries, to facilitate early diagnosis and treatment.

**Conflict of interest:** None. **Disclaimer:** Nil.
References


Kanili Jimo 1, Nounehchutuo Miachieo 2, Bendangtoshi Jamir 3, Rebeki Momin 4, Nito Yepthomi 5

1 Consultant, Department of Obstetrics and Gynaecology, Christian Institute of Health Sciences and Research (CIHSR), Dimapur, Nagaland, India; 2 Consultant Pathologist, Department of Laboratory Sciences, CIHSR, Dimapur, Nagaland, India; 3 Senior Consultant, Department of Obstetrics and Gynaecology, CIHSR, Dimapur, Nagaland, India; 4 Senior Consultant, Department of Obstetrics and Gynaecology, CIHSR, Dimapur, Nagaland, India; 5 Consultant Pathologist, Department of Laboratory Sciences, CIHSR, Dimapur, Nagaland, India.